Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
New Part 4 of the Commission's Rules Concerning Disruptions to Communications	)	**ET Docket No. 04-35**

COMMENTS OF MCI, INC.

MCI, Inc. hereby submits its comments in response to the Federal Communications Commission's Notice of Proposed Rulemaking concerning changes to the Commission's service disruption reporting rules.[1] Like most carriers, MCI shares the Commission's concerns relating to Homeland Security and network reliability. As a general matter, however, MCI believes that mandatory outage reporting requirements should not be expanded, and that the Commission should instead encourage voluntary reporting through existing industry working groups. Voluntary industry groups working under the auspices of the Network Reliability and Interoperability Council ("NRIC") and the Alliance for Telecommunications Industry Solutions ("ATIS") have been successful in gathering and analyzing outage data. And the work product from these groups has ultimately given rise to more reliable networks. The Commission should therefore encourage industry participation in these fora instead of imposing expanded mandatory reporting requirements.

[1] *New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Notice of Proposed Rulemaking, ET Docket No. 04-35 (rel. Feb. 23, 2004) ("NPRM").

Additionally, consistent with the NPRM's stated goals of "(e)nsuring that the United States has reliable communications" and ensuring that "the people of the United States … have secure communications that they can rely upon for their daily needs,"[2] the Commission should see to it that any outage information that is collected be submitted through the Department of Homeland Security ("DHS"), so that it can be protected from public disclosure as Protected Critical Infrastructure Information.

To the extent the Commission does move forward to expand outage reporting, it should modify a number of the proposals outlined in the NPRM. In many cases, the NPRM's proposed changes are technically infeasible or cost prohibitive. In other cases, the proposals are too vague to be effectively implemented. A few representative examples are highlighted below.

II. The Number of "End-Users" May be Impossible to Determine Under the Proposed Rules

The NPRM proposes using the term "user" in lieu of "customer" to trigger outage reporting.[3] The Commission states that this change is necessary because a "customer" could be viewed as a corporate or government entity with potentially hundreds (or thousands) of end-users.[4] MCI opposes the application of this definition because it impracticable. In cases where MCI's customer employs a PBX, for example, MCI may not know the number of potentially-affected users. In particular, in a voice application where the customer employs a PBX, MCI only knows the number of trunk connections between the customer's PBX and its switch. As a result, there is no way to calculate how many "users" are impacted by any given outage.

[2] NPRM, at ¶ 3.
[3] NPRM, at ¶ 20.
[4] *Id.*

For some services, MCI may assign or be aware that a customer has assigned a block of numbers to a particular site (*e.g.,* NPX-555-12XX would be a block of 100 users). MCI may therefore know the maximum number of users, but will be unable to determine the actual number of users. Using the criteria proposed by the Commission may result in outage reporting that dramatically overstates the actual number of users.

With respect to other PBX-related, non-voice applications (*e.g.,* data or Internet access), MCI does not generally know, nor does it have any means to track, how many users a customer has at any particular site. Lastly, for non-voice or non-wireline outage reporting, MCI may not know the geographic location of potentially-affected customers, thus, MCI would be unable to calculate how many "users" are associated with a particular outage.

Consequently, reporting outages based upon "end users" would be invariably be inaccurate and of questionable value.

The NPRM also proposes defining the number of "end-users" as the number of "assigned telephone numbers."[5] "Assigned telephone numbers" is in turn defined by the Commission as the sum of "assigned numbers" and "administrative numbers" as is defined in section 52.15(f)(i) and (iii) of the Commission's rules. MCI believes that the Commission should clarify that an outage's impact is related to a service provider operating in the LEC role, not an IXC, since only a LEC allocates a telephone number to an end user.

The NPRM states that 900,000 user minutes rule applies universally, but it also refers to users who could be "without service."[6] A user is considered to be "without

[5] NPRM, at ¶ 33.
[6] NPRM, at ¶ 20.

service" only if that user has no ability to make calls. Technically speaking, a user has no ability to make calls only if the switch that the user is directly connected to is "down," or the cable connecting the user to the switch is cut. But there are a number of ways that a customer may be multiply connected in order to place and/or receive telephone calls. The Commission should therefore clarify the meaning of users who are "without service," taking into account the fact that users may have alternate means of communications.

III. IXC and LEC Tandem Outages Proposal Should be Clarified

To the extent the Commission modifies its rules relating to IXC and LEC Tandem Outages, MCI urges it to clarify that when LEC Tandem outages are discussed, the word "Tandem" should be replaced with "Network." The term "Tandem" is too narrow for outage purposes. Using the term "Network" instead will ensure that LECs include both tandem switch and transport facility service disruptions when reporting outages.

IV. DS3 Outage Reporting is Unnecessary

The NPRM proposes requiring reporting of all outages of at least 30 minutes duration that potentially affect at least 1,350 DS3 minutes.[7] The Commission proposes that this reporting requirement be used in addition to the 900,000 user-minute and 90,000 blocked-call criteria. MCI believes that other reporting criteria should adequately capture the data the Commission is seeking with this reporting requirement.

This new requirement would impose a double jeopardy on reporting carriers. For example, a Digital Cross-Connect ("DXC") or fiber-cut outage could be the cause of both a call-related outage and a DS3 minute outage. A single outage situation could thus give rise to two reportable events, which results in inefficient use of resources.

[7] NPRM, at ¶ 47.

The imposition of a reporting requirement on a technology (*e.g.,* a DXC system) that most often carries non-diversity traffic is equally problematic. There exists no alternate path within a DXC machine for re-routing any volume of its actual circuits - circuits that intrinsically carry no restoration requirement. Within the switched network, MCI diversifies traffic trunks across multiple DXC systems for just this reason, in order to avoid a catastrophic impact to voice traffic. If implemented, this reporting requirement will often reflect a loss of diversity, rather than a quantifiable customer impact. Thus, it would be difficult to determine the customer impact of this in user minutes.

V. Wireless Reporting Requirements are Vague

Through its wholly-owned subsidiary, SkyTel Corp. ("SkyTel"), MCI operates a One-Way Messaging network under Part 22 of the Commission's rules and a Two-Way Messaging network under Part 24 of the Commission's rules.

MCI is concerned over the methodology necessary to accurately determine the number of subscriber devices impacted by any particular outage. For example, while we may know how many subscriber devices were delivered to customers in a given coverage area, we are unable to determine the specific location of the subscriber devices at any given moment in time. Such location information is critical to determine the number of impacted users.

A wireless carrier may be able to estimate the number of subscribers (based on billing records) in a market area and use that number for reporting a full market outage, but the accuracy of such an estimate is questionable. If estimates are permitted by the rules, it is incumbent upon the Commission to determine the allowable methods for calculating the estimated number of users. For example, the Commission could base this on network or

regional outage. In this way, there would be a defined number of customers. Alternatively, the Commission could use network availability report.

Single cell site outages in this industry present another concern. We believe that coverage redundancy within the SkyTel networks makes a single cell failure largely unnoticeable to nearly all subscribers within the coverage area of the affected cell. For this reason, any formula prorating the number of subscribers to a particular cell would likely provide a gross exaggeration of the number of subscribers actually affected.
MCI believes that, to the extent the Commission requires part 22 and part 24 carriers to submit outage reports, it must provide a specific methodology to reasonably compute the number of paging and two way messaging subscribers impacted. Such methodology must take into account the various outage scenarios involving single site, multiple site, market area, regional and national outages. Wireless carriers would then be able to consistently apply the rule to determine if an outage must be reported – and the data collected would be more meaningful as a whole. As drafted, the NPRM is vague, leaving the individual carriers to determine how they will interpret the rule.

VI. Outage Information Must be Kept Out of the Public Domain

The rules the Commission ultimately implements should squarely address the issue of Critical Infrastructure Information ("CII"). While compiling outage information arguably may have some use in fostering reliability in telecommunications networks, it could actually have the exact opposite effect if the information falls into the wrong hands. In particular, terrorists, hackers, or other miscreants could exploit sensitive network data to compromise or even bring down a telecommunications network. It is therefore essential that outage information be kept from public disclosure.

Indeed, the concern over sensitive critical infrastructure information was enough to prompt legislation in the wake of September 11, 2001 terrorist attacks. On November 25, 2002, President Bush signed into law the Homeland Security Act of 2002, which included, in Subtitle B of Title II, the Critical Infrastructure Information Act of 2002 ("CIIA"). The CIIA was enacted to facilitate information sharing relating to vulnerabilities and threats by the private sector, by ensuring that the information remained exempt from public disclosure. The Department of Homeland Security ("DHS") subsequently drafted and put into place specific rules implementing the CIIA. These rules went into effect on February 20, 2004.[8]

Valid CII that is submitted to DHS pursuant to the new rules will be accorded "Protected" status.[9] CII that is deemed by DHS to be "Protected" is exempt from disclosure under both Federal and State Freedom of Information Acts.

Yet, in order for CII to enjoy this "Protected" status, the Commission must obtain it from DHS – not directly from a carrier. Therefore, in order to ensure that outage information is kept out of the public domain, the Commission should encourage carriers to provide outage information to DHS, where the Commission can in turn obtain the information.

VII. The Commission Should Not Extend its Airport Outage Reporting Rules

The Commission has proposed to significantly change the requirements for reporting communications outages that potentially affect special offices and facilities by making this reporting requirement applicable to all airports, instead of just major airports,

[8] *See* 6 C.F.R. §§ 29.1 – 29.9.

[9] CII is subject to validation, however, and may not be accorded "Protected" status if it does not meet the requirements of the CIIA.

as the rules currently require.[10] The proposed change is unnecessarily burdensome and may result in inconsistent reporting of major outages affecting air traffic. MCI urges the Commission to carefully reconsider this proposed change.

Under the current rules, carriers are required to notify the Commission of any outages lasting thirty minutes or more that affect major airports.[11] Major airports are defined as those airports described by the Federal Aviation Administration (FAA) as large or medium hubs.[12] An outage which potentially affects a major airport is defined as an outage:

> that disrupts 50% or more of the air traffic control links to any major airport, any outage that has caused an Air Route Traffic Control Center (ARTCC) or major airport to lose its radar, any ARTCC or major airport outage that has received any media attention of which the carrier's reporting personnel are aware, any outage that causes a loss of both primary and backup facilities at any ARTCC or major airport, and any outage to an ARTCC or major airport that is deemed important by the FAA as indicated by FAA inquiry to the carrier management personnel.[13]

MCI believes that the proposed expansion of this outage reporting requirement to all airports is unnecessarily burdensome. The Federal Aviation Administration estimates that there are approximately 1,987 passenger airports in the U.S.[14] Out of this number, the top 100 air carrier airports accounted for 95 percent of total passenger boardings in 2002 at FAA and contract towered airports.[15] The thirty-one large hub airports, as defined by the

[10] *See* NPRM, at ¶ 24.
[11] 47 C.F.R. § 63.100(a)(3) & (e).
[12] 47 C.F.R. § 63.100(a)(5).
[13] 47 C.F.R. § 63.100(a)(6).
[14] This figure does not include general aviation airports, which are the largest single group of airports in the U.S. airport system. *See* Federal Aviation Administration, U.S. Department of Transportation, "Preliminary 2002 Enplanement and All-Cargo Reports" (2004).
[15] *See* Federal Aviation Administration, U.S. Department of Transportation, "Terminal Area Forecast Summary, Fiscal Years 2003-2020," FAA-APO-04-1, Mar. 2004. The data in this report covers the 266 FAA towered airports, 218 Federal contract tower airports, 180 radar approach control facilities, and 2,976 non-FAA airports. *Id.*

FAA,[16] boarded 439.0 million passengers in 2002, and the 37 medium hub airports boarded 124.6 million passengers. The 68 small hub airports boarded 46.8 million passengers in 2002, while the 348 non-hub airports boarded 16.5 million passengers.[17]

MCI recommends that the Commission retain the current definition of "special offices and facilities" to include only "major" airports, -- that is, the 136 large and medium hub airports, as determined by the FAA.[18] This definition would keep the outage reporting requirements applicable to the nation's busiest airports, which account for the vast majority of all passenger boardings.

MCI notes that the proposed definition, like the existing definition for outages potentially affecting airports, continues to make outage reporting dependent on media reports, which may produce inconsistent reporting. MCI proposes that the Commission adopt the more objective definition recommended by the NRIC VI Focus Group 2 in its Final Report instead.[19] In this Final Report, NRIC recommended that an outage affecting an airport be reportable if it is deemed to be "air traffic impacting," which NRIC defined as:

> the loss of greater than 50% of telecommunication services at a critical air traffic control facility including airports Terminal Radar Approach Control (TRACONS) or Air Traffic Control Towers (ATCTs) or a FAA Air Route Traffic Control Center (ARTCC) that impacts the ability of the air traffic facility to control air traffic as determined by the FAA Air Traffic Supervisor at the Air Traffic Systems Command Center (ATSCC). This may include loss of critical telecommunications services that transmit radar data, flight plan data or controller-to-pilot and controller-to-controller voice.[20]

[16] An airport qualifies as a large hub with one percent or more of total U.S. passenger boardings. A medium hub airport boards from 0.25 to 0.99 percent of total U.S. passenger boardings, while small and non-hub airports enplane from 0.05 to 0.249 percent and less than 0.05 percent, respectively. *Id.* at Appendix B.
[17] *Id*. at Table S-5.
[18] *Id*.
[19] *See* Network Reliability and Interoperability Council VI, "Focus Group 2 – Network Reliability, Final Report," November 17, 2003.
[20] *Id.* at sections 6.3 and 7.2.

MCI believes that this definition of "air traffic impacting" will satisfy the Commission's concerns over more consistent reporting of significant outages affecting air traffic.

VIII. Revisions to the Electronic Filing Template Must Not Give Rise to New Reporting Obligations

The NPRM proposes delegating authority for making revisions to the electronic filing system and template to the Chief of the Office of Engineering and Technology ("OET").[21] MCI is concerned that these revisions might actually end up altering the underlying reporting requirements. That is, it is possible that OET, in implementing a change to the template, could make reporting obligations more onerous. To avoid this eventuality, the Commission should clarify that any revisions OET implements would be non-substantive.

IX. Conclusion

For the foregoing reasons, MCI urges the Commission to refrain from expanding its outage reporting requirements and, to the extent it does expand the requirements, that it does so consistent with the above comments.

Respectfully submitted,
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[21] NPRM, at ¶ 51.